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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,950	06/26/2003	Kyu Sang Ro	11037-127-999	6961

24341 7590 10/19/2005

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EXAMINER

NGUYEN, DUC M

ART UNIT PAPER NUMBER

2685

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/608,950	Applicant(s) RO, KYU SANG	
	Examiner Duc M. Nguyen	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6 and 7 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 8-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The references listed in the information disclosure statements submitted on 6/26/03, 4/14/05 and 6/16/05 have been considered by the examiner (see attached PTO-1449).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1-2, 6-7** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kennedy et al** (US 5,930,693).

Regarding claim **1**, **Kennedy** discloses an automobile radio receiver for controlling AGC loop response time upon detection of sudden decrease in signal level (rate of change) when entering the under pass (see Abstract and Fig. 8), comprising:

detecting wave strength of the radio wave at a running vehicle (see col. 5, lines 49-51);

determining whether the wave strength is above a predetermined strength (see col. 5, lines 49-51);

calculating change rate of the wave strength when the wave strength is above

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the predetermined strength (see col. 5, lines 10-20), wherein it is clear that the slope detector would detect change rate of the wave strength when the wave strength is above the predetermined strength or above a detection level, and in order to detect an underpass condition, it is clear that the rate of change would be compared to a predetermined value to detect the underpass condition (see col. 5, lines 32-42); and controlling amplification of the radio waves received by the on-glass antenna on the basis of the change rate of the wave strength (see col. 5, lines 16-27).

Here, although **Kennedy** is silence on a glass antenna, it is noted that the use of a glass antenna for an automobile radio receiver is well known in the art. Since **Kennedy** discloses an automobile radio receiver, it would have been obvious to one skilled in the art at the time the invention was made to provide the glass antenna to the the automobile radio receiver in Kennedy as well, for utilizing advantages provided by glass antenna such as cost, long lasting antenna.

Regarding claim **6**, the claim is rejected for the same reason as set forth in claim 1 above, wherein it is clear that the radio receiver would comprise a tuner as claimed, in order to tune the radio receiver to a selected frequency band.

Regarding claims **2, 7**, the claims are rejected for the same reason as set forth in claim 1 above. In addition, although **Kennedy** is silence on a predetermined level that provides listenable performance (see col. 5, lines 45-50), it would have been obvious to one skilled in the art to set such listenable threshold as claimed, for improving the audio quality of the receiver to listeners.

Allowable Subject Matter

4. Claims 3-5, 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: As to claims 3, 8, the cited prior art fails to disclose or make it obvious a method for cutting off power supply of an on-glass antenna amplifier for amplifying signals of the on-glass antenna when the change rate of the wave strength is above the reference change rate which comprises steps as specified in the claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suganuma et al (US 5,507,023), Receiver with an AGC circuit capable of expanding a dynamic range.

Imazeki et al (US 4,411,020), Power efficient radio receiver apparatus.

Brinkhaus (US 5,303,414), Method and device for minimizing interference, in particular in connection with FM reception.

Sumitomo et al (JP 05-083152), Receiver for mobile body.

Mino (JP 10-336142), Receiver for digital audio broadcast.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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or faxed to:

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

Hand-delivered responses should be brought to Customer Service Window,
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner
should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893,
Monday-Thursday (9:00 AM - 5:00 PM).

Or to Edward Urban (Supervisor) whose telephone number is (571) 272-7899.

Duc M. Nguyen

Oct 12, 2005

A handwritten signature in black ink, appearing to read 'Duc M. Nguyen', with a long horizontal stroke extending to the right.